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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,427	07/03/2001	Jon Elliot Adler	P 0282558 2001-028A	8334

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EXAMINER

LANDSMAN, ROBERT S

ART UNIT	PAPER NUMBER
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1647

DATE MAILED: 09/19/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/897,427

Applicant(s)

ADLER ET AL.

Examiner

Robert Landsman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-99 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-99 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *1. Election/Restriction*

A. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, drawn to a method of screening compounds which modulate sweet taste signaling, classified in class 435, subclass 7.2.
- II. Claims 12, 16, 51-55 in part, 61-65 in part, 71-75 in part, 81-87 in part, and 93-98 in part, drawn to a T1R polynucleotide of SEQ ID NO:1 and its encoded protein of SEQ ID NO:2, classified in class 536, subclass 23.5.
- III. Claims 13, 17, 51-55 in part, 61-65 in part, 71-75 in part, 81-87 in part, and 93-98 in part, drawn to a T1R polynucleotide of SEQ ID NO:3 and its encoded protein of SEQ ID NO:4, classified in class 536, subclass 23.5.
- IV. Claims 14, 15, 18, 51-55 in part, 61-65 in part, 71-75 in part, 81-87 in part, and 93-98 in part, drawn to a T1R polynucleotide of SEQ ID NO:5 or 7 and its encoded protein of SEQ ID NO:6, classified in class 536, subclass 23.5.
- V. Claims 19-30 in part, and 35, drawn to a polypeptide of SEQ ID NO:2 and its encoding polynucleotide of SEQ ID NO:1, classified in class 530, subclass 350.
- VI. Claims 19-30 in part, and 36, drawn to a polypeptide of SEQ ID NO:4 and its encoding polynucleotide of SEQ ID NO:3, classified in class 530, subclass 350.
- VII. Claims 19-30 in part, and 37, drawn to a polypeptide of SEQ ID NO:6 and its encoding polynucleotide of SEQ ID NO:5 or 7, classified in class 530, subclass 350.
- VIII. Claims 31-33 in part, 56-60 in part, 66-70 in part, 76-80 in part, and 88-92 in part, drawn to a chimeric polypeptide comprising SEQ ID NO:2, and a chimeric nucleic acid molecule of SEQ ID NO:1, classified in class 530, subclass 402.
- IX. Claims 31-33 in part, 56-60 in part, 66-70 in part, 76-80 in part, and 88-92 in part, drawn to a chimeric polypeptide comprising SEQ ID NO:4 and a chimeric nucleic acid molecule of SEQ ID NO:3, classified in class 530, subclass 402.
- X. Claims 31-33 in part, 56-60 in part, 66-70 in part, 76-80 in part, and 88-92 in part, drawn to a chimeric polypeptide comprising SEQ ID NO:6 and a chimeric nucleic acid molecule of SEQ ID NO:5 and 7, classified in class 530, subclass 402.
- XI. Claim 34 in part, drawn to a polypeptide array, classified in class 530, subclass 300.
- XII. Claim 38, drawn to a method of screening compounds which modulate sweet taste signaling by using two or more polypeptides, classified in class 435, subclass 7.2.

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- XIII. Claims 39-42, drawn to a biochemical assay for identifying tastant ligands that bind GPCRs, classified in class 435, subclass 7.2.
- XIV. Claims 43-47 in part, 49 and 50, drawn to a method of enhancing surface expression of integral plasma membrane olfactory G protein-coupled receptor, classified in class 435, subclass 69.1.
- XV. Claims 43-47 in part, 48 in part, 49 and 50, drawn to a method of enhancing surface expression of integral plasma membrane taste G protein-coupled receptor of SEQ ID NO:2, classified in class 435, subclass 69.1.
- XVI. Claims 43-47 in part, 48 in part, 49 and 50, drawn to a method of enhancing surface expression of integral plasma membrane taste G protein-coupled receptor of SEQ ID NO:4, classified in class 435, subclass 69.1.
- XVII. Claims 43-47 in part, 48 in part, 49 and 50, drawn to a method of enhancing surface expression of integral plasma membrane taste G protein-coupled receptor of SEQ ID NO:6, classified in class 435, subclass 69.1.
- XVIII. Claims 51-55 in part, and 96-98 in part, drawn to an isolated nucleic acid molecule of SEQ ID NO:8, classified in class 536, subclass 23.5.
- XIX. Claims 51-55 in part, and 96-98 in part, drawn to an isolated nucleic acid molecule of SEQ ID NO:9, classified in class 536, subclass 23.5.
- XX. Claims 56-60 in part, drawn to a chimeric nucleic acid molecule of SEQ ID NO:8, classified in class 536, subclass 23.5.
- XXI. Claims 56-60 in part, drawn to a chimeric nucleic acid molecule of SEQ ID NO:9, classified in class 536, subclass 23.5.
- XXII. Claim 99 in part, drawn to a nucleic acid array of one or more nucleic acid molecules, classified in class 435, subclass 6.

B. The inventions are distinct, each from each other because of the following reasons:

Inventions II-XI, XVIII-XXII are independent and distinct, each from each other, because they are products which possess characteristic differences in structure and function and each has an independent utility that is distinct for each invention which cannot be exchanged. The polynucleotide of inventions II-IV, XVIII and XIX can be used to make a hybridization probe, or can be used in gene therapy as well as to produce the protein, or chimeras of interest. The protein of inventions V-VII can be

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used for purposes other than to make the chimeric proteins of inventions VIII-X, such as therapeutically or diagnostically (e.g. in screening).

Inventions I, XII- XVII are independent and distinct, each from the other, because the methods are practiced with materially different process steps for materially different purposes and each method requires a non-coextensive search because of different starting materials, process steps and goals.

Invention I is unrelated to Inventions II-IV, VIII-XI, XVIII-XXII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together.

Inventions I and V-VII are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product, or (2) the product as claimed can be used in a materially different process of using that product MPEP § 806.05(h).

Invention II-IV, VIII-X are unrelated to Inventions XII-XVII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together.

Invention V and XII, XIII, XV are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product, or (2) the product as claimed can be used in a materially different process of using that product MPEP § 806.05(h).

Invention V is unrelated to Inventions XIV, XVI, XVII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together.

Invention VI and XII, XIII, XVI are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product, or (2) the product as claimed can be used in a materially different process of using that product MPEP § 806.05(h).

Invention VI is unrelated to Inventions XIV, XV, XVII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation,

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different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together.

Invention VII and XII, XIII, XVII are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product, or (2) the product as claimed can be used in a materially different process of using that product MPEP § 806.05(h).

Invention VII is unrelated to Inventions XIV, XV, XVI. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together.

Invention XI and XII, XIII are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product, or (2) the product as claimed can be used in a materially different process of using that product MPEP § 806.05(h).

Invention XI is unrelated to Inventions XIV-XVII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together.

Invention XII-XVII are unrelated to Inventions XXVIII-XXII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and recognized divergent subject matter as defined by MPEP § 808.02, the Examiner has *prima facie* shown a serious burden of search (see MPEP § 803). Therefore, an initial requirement of restriction for examination purposes as indicated is proper.

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C. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR § 1.48(b) and by the fee required under 37 CFR § 1.17 (h).

*Advisory information*

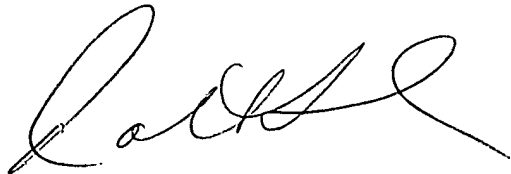
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Landsman whose telephone number is (703) 306-3407. The examiner can normally be reached on Monday - Friday from 8:00 AM to 5:00 PM (Eastern time) and alternate Fridays from 8:00 AM to 5:00 PM (Eastern time).

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Gary Kunz, can be reached on (703) 308-4623.

Official papers filed by fax should be directed to (703) 308-4242. Fax draft or informal communications with the examiner should be directed to (703) 308-0294.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Robert Landsman, Ph.D.  
Patent Examiner  
Group 1600  
September 13, 2002

A handwritten signature in black ink, appearing to read 'R. Landsman', is written over a horizontal line.